

AD-A240 996



2



AIR WAR COLLEGE

RESEARCH REPORT

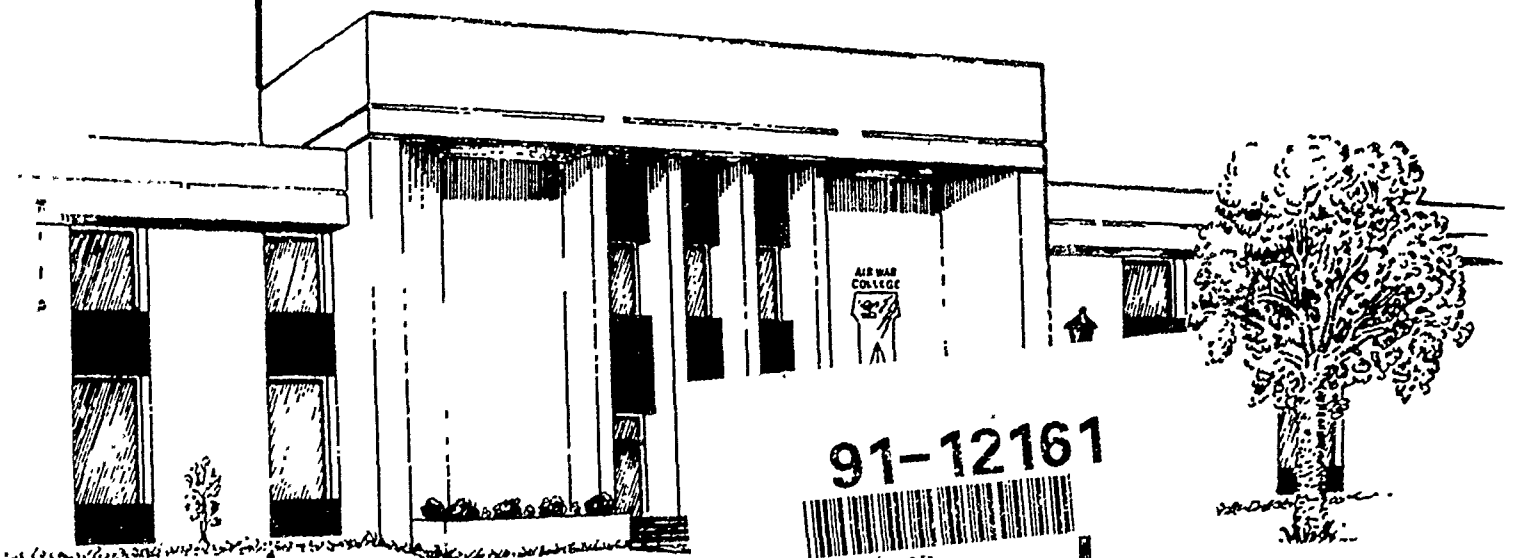
COLLECTIVE EUROPEAN SECURITY FORCES:

AN IDEA WHOSE TIME HAS COME

DTIC
ELECTE
OCT 02 1991
S D D

LIEUTENANT COLONEL JAMES W. MOREHOUSE

1990



91-12161



AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

91 10 2 022

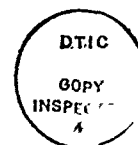
APPROVED FOR PUBLIC
RELEASE; DISTRIBUTION
UNLIMITED

AIR WAR COLLEGE
AIR UNIVERSITY

COLLECTIVE EUROPEAN SECURITY FORCES:
AN IDEA WHOSE TIME HAS COME

by

James W. Morehouse
Lieutenant Colonel, USAF



A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM
REQUIREMENT

Advisor: Colonel Hugh C. Whatley

MAXWELL AIR FORCE BASE, ALABAMA

April 1990

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Availability / or Special
A-1	

DISCLAIMER

This study represents the views of the author and does not necessarily reflect the official opinion of the Air War College or the Department of the Air Force. In accordance with Air Force Regulation 110-8, it is not copyrighted but is the property of the United States government.

Loan copies of this document may be obtained through the interlibrary loan desk of Air University Library, Maxwell Air Force Base, Alabama 36112-5564 (Telephone: [205] 293-7232 or Autovon 875-7223).

EXECUTIVE SUMMARY

TITLE: Collective European Security Forces An Idea Whose Time Has Come

AUTHOR: James W. Morehouse, Lieutenant Colonel, USAF

Three different but interrelated forces present today in Western Europe have not only created unprecedented opportunity but also to a large degree dictate change in the European security system. The events in Eastern Europe have dramatically altered the threat perception on both sides of the Atlantic and have set the stage for sweeping arms control agreements. As the military threat subsides the European nations will focus on accelerating the pace of European integration with Western Europe increasingly asserting its independence of the United States. As this transatlantic relationship continues to evolve, Western Europe should be expected to assume greater responsibility for its defense. The appropriate sharing of risks, roles and responsibilities will add to the other pressures behind a new security order for Western Europe. The future security order could be formed along traditional national lines, or evolve via national task/role specialization or be totally transformed through a collective forces approach. This study will examine the forces behind the inevitable change, discuss force structuring options, recommend the adoption of commonly-funded forces and then outline an area where the transformation could begin.

BIOGRAPHICAL SKETCH

Lieutenant Colonel James W. Morehouse (M.A., The Fletcher School of Law and Diplomacy, Tufts University) has spent in excess of nine years in the European theater as an Olmsted Scholar at the University of Freiburg, graduate of the German Federal Armed Forces Staff College and flying squadron commander with the NATO Airborne Early Warning E-3A Component. Lt Col Morehouse is a graduate of the Air War College, class of 1990.

TABLE OF CONTENTS

CHAPTER		PAGE
	DISCLAIMER	i
	EXECUTIVE SUMMARY	ii
	BIOGRAPHICAL SKETCH	iii
	TABLE OF CONTENTS	iv
	LIST OF ACRONYMS	v
	INTRODUCTION	1
I	THE FORCES PROMOTING CHANGE	3
	The Events in Eastern Europe.	3
	European Integration.	8
	Shared Risks, Roles and Responsibilities	14
II	THE ALTERNATIVES	18
	The Criteria	19
	Status Quo, Business As Usual	24
	Specialization as an Alternative	27
	Collectively Owned and Operated Forces	31
III	COLLECTIVE CENTRAL REGION AIR DEFENSE FORCES . .	37
	Defensive Forces and Current Trends	38
	Integration and Commonality of Equipment . .	40
	Recognized Area of Concern	44
	An Incremental Approach	47
	CONCLUSION	55
	TABLES	
	Table One: Conventional Armed Forces in Europe	58
	Table Two: Membership	59
	Table Three: Air Defense Weapons	60
	BIBLIOGRAPHY	61

LIST OF ACRONYMS

AAA	Antiaircraft Artillery
AAFCE	Allied Forces Central Europe
ACCS	Air Command And Control System
AAR	Air-to-Air Refuelling
AIRBALTAP	Air Baltic Approaches
ATAF	Allied Tactical Air Force
ATC	Armored Troop Carrier
ATTU	Atlantic to the Urals
AWACS	Airborne Warning And Control System
BE	Belgium
CA	Canada
CFE	Conventional Armed Forces Europe
CINC	Commander-In-Chief
CR	Central Region
CRC	Control and Reporting Center
DA	Denmark
DPC	Defense Planning Committee
EC	European (Economic) Community
FR	France
FRG	Federal Republic of Germany
GCI	Ground Controlled Intercept
IEPG	Independent European Program Group
IFF	Identification Friend or Foe
LLRP	Low Level Reporting Post

MBFR	Mutual and Balanced Force Reductions
MC	Military Committee
MNC	Major NATO Commander
NADGE	NATO Air Defense Ground Environment
NAEW	NATO Airborne Early Warning
NATO	North Atlantic Treaty Organization
NIS	NATO Identification System
NL	The Netherlands
SAM	Surface-to-Air Missile
SAS	Study Group on Alternative Security Policy
SOC	Sector Operations Center
UK	United Kingdom
US	United States
WEU	Western European Union
WTO	Warsaw Treaty Organization

INTRODUCTION

In the late 1970s the Council of the European Movement submitted a resolution advocating the creation of a European Defense Force with its own organization and command structure, drawn largely by absorbing various national force structures.¹ This force was envisioned as a single European contribution which would act in concert with forces from North America. At the time, the proposal was quickly brushed aside by the European Group of the North Atlantic Treaty Organization (NATO) as disruptive and consequently neither desirable nor necessary. All agreed that the the defense interests of the European countries were looked after very well by NATO. But after 40 years of success, NATO and European security appear to have reached a crossroads where even the most fundamental of security assumptions is being called into question.

In contrast to the late 1970s there are major forces at work today which will present a unique opportunity to transition beyond conventional force structures to collective security arrangements in Europe. These forces include the events in Eastern Europe, European integration and the equitable sharing of defense risks, roles and responsibilities. The first chapter of this paper will examine these factors to show that the prerequisites for radical change are indeed at

¹Report of a Working Party on the Question of a European Defense Force and Other Possible Means of European Defense Cooperation, European Defense Cooperation, Trust for Education & Research, 1978, p. 1.

hand.

Having examined these factors, this study will then turn to alternative security concepts for restructuring military forces. Basically three courses of action will be examined. The first corresponds to the present security arrangements where each nation tries to maintain some degree of balanced defense capability and earmarks forces to the Alliance. A second alternative entails role/task specialization by national forces. And the final alternative is a collective force structure similar to that proposed in the 1950s. Criteria which are in line with the major forces outlined in the first chapter will be established to assess each of the alternatives. This examination will reveal that security requirements may be best served by moving toward collectively owned and operated forces.

The study will turn to implementation and suggest that Central Region (CR) air defense should be the starting point for major force restructuring. It will look at the reasons that make CR air defense well suited to be the catalyst for such radical change and then suggest how an incremental approach could be followed to reach this goal.

CHAPTER I

THE FORCES PROMOTING CHANGE

The Events in Eastern Europe

On December 7, 1988 Soviet General Secretary Gorbachev, addressing the United Nations General Assembly, announced Soviet intentions to unilaterally reduce its armed forces by 500,000 troops. Of Soviet forward-based forces in the German Democratic Republic, Hungary and Czechoslovakia, he pledged to withdraw "50,000 troops, 5,000 tanks, and 6 tank divisions, including assault landing (airborne) and assault crossing (engineer/bridging) units."¹ He furthermore announced that those forces remaining would be restructured into a more defensive posture.

After a series of similarly breath-taking offers by the Warsaw Pact as well as the NATO Alliance, both sides have now settled into serious negotiations which promise to radically alter the security relationships within Europe. As Dr. Stanley Sloan from the Arms Control Association noted: "the Soviet Premier may be offering the NATO nations an historic opportunity to reduce and restructure the East-West military confrontation in Europe."² Stanley Resor, former chief United States (US) negotiator to the Mutual and Balanced Force Reduction (MBFR) talks, suggests that Soviet Premier Gorbachev is offering the NATO Alliance the chance to move away from the

¹Jack Mendelsohn, "Gorbachev's Preemptive Concession," Arms Control Today, March 1989, p. 10.

²Stanley R. Sloan, "A Test for the West: NATO Approaches Conventional Cuts With Mixed Emotions," Arms Control Today, August 1989, p. 8.

unregulated East-West military competition of the past in favor of a more stable balance which will be comprehensively regulated by arms control.¹

As the dominos continue to fall in Eastern Europe and the Berlin Wall is being knocked full of holes, it is clear that Soviet Premier Gorbachev is for real and major changes in European security arrangements appear imminent. Amidst the dramatic turn of events in Eastern Europe even the most fundamental of security assumptions seems to be up for question. The Soviet Premier's call for deep cuts, new thinking on security, his conception that the military should "suffice to repulse any possible aggression, out [be] inadequate for the conduct of offensive operations,"² have enthralled the Western public, particularly in Western Europe.

In contrast to the defunct MBFR negotiations, the Conventional Armed Forces Europe (CFE) negotiations are almost guaranteed to produce militarily significant reductions. And the primary reason is that "this time around, it's becoming increasingly clear that the Soviets actually want an outcome."³ Both sides have agreed that the goal of the initial CFE agreement will be to achieve equal ceilings in six categories of conventional forces (see Table One). To arrive at these equal ceilings the Soviets have acknowledged that reductions

¹"European Arms Control After the NATO Summit," Arms Control Today, June/July 1989, p. 3.

²Anders Roserup, "A Way to Undermine Hostility," Bulletin of Atomic Scientists, September 1988, p. 19.

³"Breaking with Convention: The Start of New European Force Talks," Arms Control Today, April 1989, p. 3.

would involve huge asymmetrical cuts (following the precedent set in the Intermediate-Range Nuclear Forces Treaty).¹ This new attitude towards arms reductions and the willingness to accept asymmetrical cuts virtually guarantee that an agreement will be reached.

However, this is no time for NATO to drop its guard in the euphoria that the Cold War is over. It is obvious that through arms control the Soviet political leadership not only seeks to change its image, but also to modify its threat from the West, thereby allowing resources to be diverted to arrest the Soviet economy's sharp decline. Although the extraordinary events in Eastern Europe show that Moscow has vastly weakened its grip on its empire, the potential for regional instability is on the rise. As Richard Burt, former US Ambassador to West Germany points out:

"Eastern Europe is traditionally one of the most volatile parts of the world. It has remained a volatile region under the Soviet empire. Gorbachev's policies are likely to lead to more unrest. The challenge for the U.S. and NATO in the next 10 to 20 years may not be competition with a competent and rising Soviet Union, but just the opposite. We are seeing the decline of the Soviet empire which has expanded past the breaking point. And a Soviet Union in decline could get desperate."²

If Gorbachev were to fail, there is nothing to guarantee what type of a Soviet Union would emerge. Considering that "the policies of perestroika and glasnost are beset with a

¹"Europe Arms Control After the NATO Summit," op. cit., p. 3.

²Peter Fuhrman, "Bring the boys home?" Forbes, November 28, 1988, p. 100.

divided elite, chronic political purges, a near worthless currency, growing inflation and unemployment, worsening deficits, failed agriculture, severe food and housing shortages, environmental depredation, primitive infrastructure, labor unrest, ethnic and nationalist conflicts and ideological and religious ferment,"¹ the Soviet Union may well be on the brink of disaster, placing history at a juncture where predictability is far from the norm.

Should perestroika succeed a classic balance of power struggle will inevitably come into play and should perestroika turn into "catastroika" the counter-counter revolutionaries and "...Stalinists whom Mr. Gorbachev has stuffed into deep and unpleasant buckets may burst from them as if shot from a cannon."²

Behind this uncertainty and potential instability looms considerable Soviet military power. One clear lesson from the past is that "arms control cannot be an end in itself, security must be the objective."³ And it is becoming increasingly clear that Soviet reductions will come predominantly from older equipment while their overall modernization process continues.⁴ Despite promised significant reductions and the reposturing of

¹Paul Mann, "Commentary," Aviation Week and Space Technology, Vol. 131, No. 21, November 20, 1989, p. 19.

²Mark Helprin, "A Single Bullet," The Wall Street Journal, January 9, 1990, p. A12.

³The Atlantic Council of the United States. NATO to the Year 2000: Challenges for Coalition Deterrence and Defense (Washington D.C.: The Atlantic Council, March 1989), p. 14.

⁴"Promises, Promises." The Montgomery Advertiser, November 24, 1989, p. 12A.

forces east of the Urals mountains, the Soviet Union will still remain the foremost military power in Europe.

As Machiavelli emphasized, "it must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things."¹ Should a backlash in the Soviet Union significantly retard or even reverse the process of perestroika and glasnost, the West will require a mechanism to cope with such developments.² Consequently, "reduction of forces should be conceived to take some strain off the Soviet economy while neither imperiling Western defense nor requiring a change in the political structures it serves, for the preservation of NATO is essential not so much to meet contingencies as to deter them."³ NATO is not likely to disband just yet, although "...changes seem inevitable in the scope and configuration of its military program."⁴

One thing is certain, the Soviet threat perception which has "...served as the cementing force for NATO and as a basis to rally popular support in the West for large expenditures on sophisticated weaponry"⁵ has eroded severely and there will undoubtedly be a general assault on defense budgets by all parties while the Europeans increasingly turn their attention

¹Niccolo Machiavelli, *The Prince* (New York: New American Library, 1980), p. 49.

²Robert D. Hormats, "Redefining Europe and the Atlantic Link, *Foreign Affairs*, Fall 1989, p. 90.

³Helprin, *op. cit.*, p. A12.

⁴Fuhrman, *op. cit.*, p. 100.

⁵Hormats, *op. cit.*, p. 69.

to European integration and 1992.

European Integration

For the past 40 years, Europe has been characterized by the predominant role national autonomy has played over cooperative and integrative forces. Frustrated by the complexities of long-held rivalries and national differences, Europe has depended on the United States to guarantee its security. However, a new generation of Europeans (with no World War II experience) increasingly feel that Europe should no longer be seen as a protectorate of the United States, but rather prefer the emergence of Europe as a power in its own right.¹ According to Sir Patrick Wall, former President of the North Atlantic Assembly, European contributions to NATO entail "...95 percent of its military divisions, 90 percent of its manpower, 90 percent of its artillery, 80 percent of its tanks, 80 percent of its combat aircraft, and 65 percent of its major warships;"² and when comparing relative money expenditures, much of the European contribution is in the form of hidden costs for which they do not receive much credit.

The problem facing the Western European members of NATO today is whether to cultivate a separate identity or build/strengthen a European pillar.³ In the past the cementing

¹John B. Roos, "Europeans Trust US Conventional Shield But Would Favor 'Euro-Nuclear' Force," Armed Forces Journal International, September 1989, p. 24.

²Sir Patrick Wall, "NATO Today--And Tomorrow," Sea Power, Vol. 32, No. 5, May 1989, p. 40.

³David Greenwood, "Constructing the European Pillar," NATO Review, June 1988, p. 13.

force for NATO was the common perception of a major Soviet threat. It was that threat which "...constituted a compelling argument for reaching compromises between the United States and Western Europe on potentially divisive trade and monetary issues in order to preserve alliance unity."¹ The dramatic new political possibilities in Eastern Europe will add uncertainty into past North American-European relationships. Political and economic cooperation among the European nations has now reached a particularly important stage of development, a point at which it should have a major impact on any future European security arrangement.

As the revolutionary changes in the Eastern Bloc continue and military confrontation evolves into economic cooperation, the pressure for further European economic integration will grow, as will the role of the European Economic Community (EC). As we approach 1992 when the last trade barriers within the Common Market will be removed², it is clear that the European nations are intensifying their efforts toward unification.³ "Years of attempting to preserve fragmented, protected and highly regulated national economies have led to to competitive weakness and high unemployment in Europe...."⁴ As Western Europe strives to build a unified and efficient single market to generate jobs, accelerate social progress and engage in the global technological revolution, Dr. Robert D. Hormats, former

¹Hormats, op. cit., p. 70.

²See Table Two for a membership breakdown of the EC.

³Wall, op. cit., p. 39.

⁴Hormats, op. cit., p. 75.

Assistant Secretary of State for Economic and Business Affairs, sees as inevitable the transfer of more power and influence to the EC.¹

As Jacques Delors, the head of the European Commission, says "the events in Eastern Europe demand that there be an acceleration in the construction of the EC."² French President Francois Mitterrand also believes "Europe is at a crossroads: unless the pace of Western European integration is accelerated, Europe risks the reemergence of centuries-old disputes that could divide it into warring nationalistic pieces."³ Such rivalries could include: between Hungary and Romania over Transylvania, between Serbia and Croatia over Montenegro; and between Poland and Germany over Pomerania.⁴ "This process will also be particularly important to retain and enhance the tight integration of West Germany with the rest of Western Europe."⁵ Mr. Mitterrand sees the answer in the EC; if the 12 EC nations can truly integrate they can "become a magnet capable of attracting increasing economic and technological links with Eastern Europe and the Soviet Union."⁶

"It might be possible to envisage by the end of this century a Europe of concentric circles: (1) the EC at the core; (2) several neutrals, and other nations in the Mediterranean, enjoying particularly close economic relations with, or associate

¹Ibid.

²Walter Isaacson, "Is One Germany Better Than Two," Time Magazine, November 20, 1989, p. 41.

³Karen Elliot House and E.S. Browning, "Mitterrand Sees Europe at the Crossroads," The Wall Street Journal, November 22, 1989, p. A6.

⁴Ibid.

⁵Hormats, op. cit., p. 75.

⁶Ibid.

membership in, the EC, along with frequent consultation with the Council of Ministers and European Parliament on a range of economic and political matters; (3) some East European nations, and perhaps even the U.S.S.R., having arrangements with the EC that permit substantially increased two-way trade, along with investment treaties to encourage new and joint ventures. Associate membership might also be possible for those whose reforms over time lead their economies to operate largely on the basis of market forces. This structure could form the basic architecture of the 'common European home'.¹

In the last few months improved East-West relations have torn down barriers to the movement of the people and dramatically reduced tensions. The military competition in Europe has become an anachronism - an abnormal legacy of the Cold War - which no longer fits with the political and economic realities in Europe.² The US has participated so extensively in European security because it recognized that it was in the American interest and that imposition of Soviet control over Western Europe will seriously threaten those interests. With the stunning capitulation of communism that has swept across Eastern Europe and the virtual collapse of the Warsaw Pact it is questionable how much longer this myopic American security preoccupation with Europe will continue. A case can certainly be made that American interests are increasingly focusing on the orient. As the argument then goes, Europeans can be expected to loosen their military and political ties with the United States and "Europeanize" Western Europe's security

¹Hormats, op. cit., pp. 80.

²"Breaking With Convention: The Start of New European Force Talks," op. cit., p. 9.

policy.¹

Parallel to the European Community and also outside the NATO framework, the Independent European Program Group (IEPG)² has taken on new political life and may play an increasingly important role in the formation of a Common Market arms market. In a 1986 study entitled "Towards a Stronger Europe", the so-called Wise-man study, the IEPG detailed a comprehensive plan for reform of the military internal market in Western Europe.³ Based on the IEPG's recommendations, the 13 NATO defense ministers approved the "European Armaments Market Action Plan" in late 1988.⁴

How will these developments impact future security arrangements in NATO? Although armaments and security issues have always been and still remain outside the European Community treaty, it is questionable how long the separation of defense from EC economics can survive in an increasingly integrated Europe. In an interview then US Ambassador to West Germany Richard Burt stated that "building on the examples of Euromissile and Panavia, Europe is busily creating, through state-brokered marriages, defense manufacturing corporations as big as those in the United States."⁵ And the European defense industry is already in the midst of restructuring as major

¹Hormats, op. cit., p. 84.

²The IEPG consists of the European NATO countries, except Ireland, and is an informal forum to promote European cooperation in armaments production and procurement. See Table Three for membership breakdown.

³Greenwood, op. cit., p. 15.

⁴Rolf Roesler, "Europe 1992--A German View," Armed Forces Journal International, September 1989, p. 48.

⁵Fuhrman, op. cit., p. 100.

defense companies establish alliances and diversifications with an eye on 1992 and in line with IEPG recommendations.¹

Consequently, defense cooperation will "undoubtedly increase as European contracts replace national contracts and after 1992 defense contractors become European consortia."²

In the post-CFE era, any change in alliance security arrangements will have to reflect a more active and integrated European component. The creation of a strong European defense industry and an increasingly unified Europe will signify the emergence of a true European defense pillar. The ultimate question for NATO's 16 member countries has to be whether NATO still has a legitimate role. Although there is considerable support for a broader security framework, one which "... embraces the continent including the unaligned European nations as a whole and takes into account resurgent nationalism... NATO will remain a crucial stabilizing force during a period of great uncertainty and rising nationalist sentiments."³ Although its military role is likely to fade, NATO "will be necessary to coordinate and manage the cutback of military forces in Europe, and then to ensure that no one nation can rebuild to a threatening level."⁴ If NATO is not to become an anarchonism, it must serve not only as a source of stability, but must demonstrate resolve and vision as an instrument of

¹Roesler, op. cit., p. 50.

²Wall, op. cit., p. 41.

³"U.S. Role in Europe Linked to NATO's Uncertain Future," Aviation Week and Space Technology, March 19, 1990, p. 79.

⁴Theresa Hitchens, "NATO Leaders Seeking Path to Unify Europe," Air Force Times, December 4, 1989, p. 26.

change.¹

Shared Roles, Risks and Responsibilities

According to NATO's Defense Planning Committee, the "maintenance of Alliance cohesion and solidarity" requires that "the roles, risks and responsibilities as well as the benefits of the collective defence be shared, and be perceived to be shared, in an equitable manner."² America's mounting public and Congressional skepticism about Europe is founded in the belief that the European nations are doing less than their fair share to defend the European continent.³ "Critics...have long contended that Western Europe countries and Japan are not as interested in sacrificing for their own defense as they are in sponging off of 'Uncle Sugar' and using the savings from low defense budgets to bolster their positions in the world markets."⁴

Even after initial CFE reductions burdensharing will inevitably become a key issue as the United States tries to come to grips with massive trade imbalances and budget deficits. The reason, according to Paul Warnke, former director of the Arms Control and Disarmament Agency and Chief

¹Interview with Senator Sam Nunn in "U.S. Role in Europe Linked to NATO's Uncertain Future," Aviation Week and Space Technology, March 19, 1990, p. 80.

²NATO's Defense Planning Committee, Enhancing Alliance Collective Security, Shared Roles, Risks and Responsibilities (Brussels: NATO's Defense Planning Committee, December 1988), p. i.

³House of Representatives Committee on Armed Services, "Report of the Defense Burdensharing Panel (Washington D.C.: U.S. Government Printing Office, 1988), p. 3.

⁴Virginia Crowe. "The Power of the Eurocrats." Government Executive, February 1989, p. 22. See Christopher Layne, "Atlanticism Without NATO," Foreign Policy, Summer 1987.

Strategic Arms Limitations Talks negotiator, is relatively straightforward:

"The interesting thing to me is that our [CFE] proposals don't save us much money. They are not going to address much about burden-sharing by the Europeans. On the other hand, they're going to save the Soviet Union a potful of money. Now the question is: How do we find a way that we can also realize significant savings?...This is a useful first step but it isn't going to quiet down the question of American participation in European defense."¹

While CFE has undoubtedly raised public expectations for significantly reduced defense expenditures, without substantially deeper force structure cuts defense expenditure requirements may not appreciably change. The Western negotiating position going into the initial CFE talks called for a 20 percent reduction in U.S. forces with a ceiling of 275,000 U.S. troops in the Atlantic to the Urals region. In his State of Union address President Bush offered (and the Soviets have subsequently agreed) to lower the Soviet and U.S. troop ceiling to 195,000. It is likely as the Soviet Union finds it increasingly difficult to keep its presence in the Warsaw Treaty Organization (WTO) nations that even a lower level will be established. But even if deeper cuts do result in subsequent phases, they may be too late to impact on present budgetary problems and consequent pressures for unilateral troop reductions.²

Faced with the perception that the European nations have

¹"European Arms Control After the Summit," op. cit., p. 7.

²See Jonathan Dean, "How to reduce NATO and Warsaw Pact forces," Survival, March-April 1989 and the interview with General Woodpaster in Arms Control Today, May 1989.

the sufficient wealth, population and a well-developed industrial base plus a significant annual trade surplus with the United States, burdensharing promises to be one of the ticklish alliance security issues in the future.¹ During the period from 1975 to 1985 military expenditures accounted for on average 6.2 percent of the US gross national product, as compared to 3.6 percent for NATO Europe.² In constant 1984 dollars this equates to an annual average of \$193 billion for the US and \$80 for NATO Europe.³ Although the United States has paid a disproportionate share for the common defense, it maintains troops overseas "not so much in defense of its allies but in pursuit of a four-decade-old policy of 'forward defense', whereby the Soviet Union is confronted on its periphery, rather than at America's shores."⁴ As the Soviet threat diminishes the size of this American forward presence will have to be carefully justified, particularly during federal deficit reduction periods. The Europeans will also have to compete with strong sentiments in the U.S. that Asia is the key to the American future.

Shared risks, roles and responsibilities in the post CFE era will also dictate a change in the way NATO produces and procures its weapons. Thomas A. Callaghan Jr., author of the

¹David C. Morrison, "Fortress Europe: Who Should Pay for its Defense," Government Executive, February 1989, p. 20.

²US Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers 1987 (Washington D.C.: US Government Printing Office 1988), pp. 44 and 81.

³Ibid.

⁴Crowe, op. cit., p. 23.

1988 Defense Department commissioned report Pooling Allied and America Resources to Produce a Credible, Conventional Deterrent, argues that poor use of Western resources is causing unilateral "structural disarmament." As his argument goes:

"Consider that Europe and North America, the two largest, most technically advanced economies in the world, treaty bound for mutual security: are being outproduced and outdeployed in virtually every weapons area by the more backward economies of the Warsaw Pact; are spending more than the Warsaw Pact on conventional forces, merely to produce a 2-to-13-day tripwire; ...are wastefully duplicating one another's weapon development and production; producing a collection of forces that cannot support or even operate effectively together; are succumbing to structural disarmament with its politically unaffordable weapons, its ever-longer lead times and its unacceptably short combat sustainability."¹

In the past Western Europe has spend more than \$20 billion per year on defense procurement, approximately 60 percent went to nationally produced items, 20 percent to foreign purchases and only 20 percent on cooperatively produced systems² - the economic consequences of which were inefficiency and redundancy. As the European defense industry consolidates into European consortia some potential advantages of collaboration will take hold. It should also lead to a more much competitive atmosphere between European and American industries. The challenge will be to manage this economic change in a manner which best reflects Western security interests.³

¹Stephen Aubin, "The NATO Alliance Needs a Plan for the Future...Now," International Combat Arms, March 1989, p. 21.

²Keith Hartley, NATO Arms Cooperation: A Study in Economics, London: Georg Allen and Unwin, 1983, p. 18.

³Roesler, op. cit., p. 52.

CHAPTER II

THE ALTERNATIVES

Despite the outbreak of a peace euphoria, it is much too early to write the epitaph on communism and the Soviet Union. Given the legacy of European history and the unpredictability of the future the requirement for the NATO alliance is likely to continue. Its purpose will remain as outlined in the Harmel Report of 1967¹: "to maintain adequate military strength and political solidarity to deter aggression and other forms of pressure, and to defend the territory of member countries if aggression should occur."² In fulfilling this charter the Alliance will have to contend with the forces and realities described in the preceeding chapter while reposturing its forces. Since the magnitude of the impending change has called even the most fundamental of assumptions into question, NATO now faces a unique opportunity to seriously examine alternative force posture concepts for restructuring its forces.

This chapter will present three basic alternative approaches to this problem (status quo, specialization and commonly-funded) and assess each using specific criteria to be cited. The study recognizes that there are many shades of gray between the basic approaches suggested and that combinations thereof also deserve serious consideration. It also recognizes

¹This document contains the political decisions agreed upon by the 15 governments in 1967. It outlined the basic principles and also listed future tasks to be undertaken in the subsequent years.

²The Atlantic Council of the United States, op. cit., p. 15.

that the criteria established are not comprehensive - they represent only an attempt to quantify the major trends for use in assessing the general alternatives.

THE CRITERIA

An Adequate Deterrent

Foremost among the criteria for a force structure is the requirement to maintain an adequate deterrent. The Alliance's current deterrent posture finds its basis in NATO MC 14/3 and the twin pillars of flexible response and forward defense. Although force build-downs envisioned in the deep cut scenarios will dictate that NATO adjust its strategy, this study does not presume that flexible response and forward defense are dead, as some proponents of alternative defense concepts would maintain¹. One thing that does remain clear, regardless of the outcome of CFE, the Soviet Union will remain a military superpower and maintain the foremost military capability in the Europe. The Western Alliance will still have to be able to adequately deter any form of aggression.

Although flexible response has been maligned for "its presumed conceptual failures" and "its differences over the proper means of implementation,"² the fact remains that past criticism has centered on concepts and means, not on the strategy itself. Flexible response has endured and will continue to do so because "the flexibility of the strategy is

¹Horst Afheldt, "New policies, old fears," Bulletin of Atomic Scientists, September 1988, p. 24.

²John F. Meehan III, Colonel, U.S. Army, "NATO and Alternative Strategies," Parameters, Spring 1986, p. 14

its strength; it can be adapted and adjusted as circumstances change."¹ Since flexible response is in essence a political and military compromise, it should, as such, remain valid - although some of its operational concepts and means of implementation will be undoubtedly modified.

Deep cut scenarios will also raise questions about the validity of NATO's forward defense. Here again one encounters problems with definition. Forward defense has not always entailed defense at the inner-German border; early versions envisioned "defense as far forward as possible" which in practice translated to "a defense based on river obstacles deep in [NATO's] own territory".² Although deep cuts will certainly limit the Alliance's capability to mount a continuous defense along the inter-German border, it may not, as former Supreme Allied Commander Europe (SACEUR) General Andrew Goodpaster contends, be necessary to forfeit forward defense. By "deepening the zone of defense", he maintains, forward defense can actually be strengthened and German concerns over political and military isolation from the Alliance eliminated.³ Furthermore, deep force cuts and the establishment of highly regulated zones of defense will virtually eliminate the short warning, standing start attack scenarios. As both sides become more dependent on mobilization warning times for offensive

¹Sir John Fieldhouse, Chief of the Royal (Great Britain) Defense Staff, "Flexible Response - A Credible Defense Posture?" RUSI Journal, Summer 1988, p. 4.

²Meehan, op. cit., p. 19.

³"The General's New Order for Europe," Arms Control Today, May 1989, p. 5.

actions may go from days to months. This will also mean that NATO will have time to mobilize and then mount a forward defense.

Assuming that these basic tenants will endure, then the first criteria for any restructuring proposal is to provide an adequate deterrent in line with flexible response and forward defense.

Shared Risks, Roles and Responsibilities

The second criteria is that any future force posture must enhance and build on the process of shared risks, roles and responsibilities. A prerequisite to Alliance cohesion and cooperation has always been a clear perception by all nations that the burdens of common defense as well as its benefits are shared equitably.¹ Though views on the value and cost of certain contributions (i.e., host nation support, basing, exercises) may vary, the important perception is relative balance - the contribution of each party in relation to its capability and interest.

At the heart of the current disruptive pressures within the Alliance is the uneasy transatlantic relationship between the United States and its European partners. Dr. David Greenwood, Director of Aberdeen University's Center for Defense Studies characterizes it as follows:

"The trouble is that the relationship is unhealthy unequal. The superpower patron dominates it - politically, strategically, economically, industrially, technologically, even

¹NATO's Defense Planning Committee, op. cit., p. i.

psychologically. This breeds European resentment. Meanwhile, Washington itself worries about the costs of the United States' position, about being saddled with what is perceived there as a disproportionate share of the military and financial burden of NATO's defense. This fosters American disenchantment."¹

The challenge to the future will be to forge a transatlantic partnership which addresses both the European resentment and the American disenchantment.

In the same vein, the sharing of risks, roles and responsibilities must also have as its goal the elimination of waste - wasteful duplication on research and development, uncompetitive procurement, poor management structures and unnecessary bureaucracy. Dr. David Abshire, former U.S. Ambassador to NATO, maintains that the only way the Alliance can harness the rising cost of modern weapons systems and reverse the West's "structural disarmament" is to develop a collective defense investment strategy to manage its resources.² This mandate will become even more imperative as foreseeable defense expenditures decrease and capabilities are extensively regulated by arms control agreements. Maximizing defense capability within the constraints of fewer resources and force structure limits will necessitate the highest degree of interoperability and standardization available - the requirements of which can be best be addressed by a collective

¹Greenwood, op. cit., p. 13.

²Dr. David Abshire and Michael Moodie, "NATO Armaments Cooperation - An Action Plan for the Future," NATO's Sixteen Nations, December 1987/January 1988, p. 13.

approach.

A Force Build-down Structure

The final criteria to assess the alternative approaches is the requirement to provide a framework for structuring force build-downs. This is also essentially a dual-pronged criteria: first, to prevent unstructured unilateral force cuts prior to finalized arms control agreements; and secondly, to provide an architecture for negotiated force reductions. As General Goodpaster projects, "if we do not go to a force posture that is carefully thought out and carefully negotiated, then you may find arbitrary cuts, and the 'yo-yo' system: a situation wherein unilateral actions are taken by different countries in an uncoordinated fashion."¹ Secondly, the last thing the Alliance needs, at a point when its commitment to mutual security promises to pay big dividends in what appears to be basic changes in Soviet behavior, is the mixed signal that uncoordinated cuts would send. Jonathan Dean, former MBFR negotiator, also noted that "...unilateral actions [-] without the structure which negotiated reductions would bring of transparency and early warning measures, commitments not to increase forces and verification [-] will not enhance overall security and stability."²

Once negotiations have been completed and all the confidence building measures have been established, NATO will

¹"The General's New Order for Europe," op. cit., p. 6.

²Jonathan Dean, "How to reduce NATO and Warsaw Pact forces," Survival, March-April 1989, p. 112.

need an overall framework or architecture for structuring extensive forces cuts. Apportioning cuts will be difficult; each nation will seek its "fair" share and the sum of the bids could exceed the dividends available. For example, the US will certainly contend that it should get relief on burdensharing grounds while the West Germans will undoubtedly lay claim to large troop reductions citing their demographic situation. Apportioning of reductions is likely to be the key Alliance issue in the 1990s.¹

THE ALTERNATIVES

The Status Quo, Business As Usual Alternative

The status quo, business as usual alternative refers to NATO's present method of operation which has been characterized as:

"Functionally, its military structure is limited to an integrated command echelon to which combat forces that retain their national character are assigned, or earmarked for assignment. Several nations do not assign their forces to the integrated commands.² Although an alliance infrastructure program is in place, logistics remain essentially a national responsibility, as do weapon selection, development and procurement, force structure and manning. Moreover, while there is well-organized consultation on security affairs within the Alliance, the North Atlantic Council and the Military Committee, a great many national decisions on foreign and economic policy are undertaken unilaterally."³

¹Steven L. Canby and David Greenwood, "Beyond Burden-Sharing: A New Policy Approach," A Report submitted to the Office of Assistant Secretary of Defense, Washington D.C., June 12, 1989. p. 9.

²France, Spain and Portugal do not participate in NATO's integrated military structure.

³The Atlantic Council of the United States, op. cit., p. 15.

In assessing this approach, it is hard to argue with the success it has achieved as a deterrent. Virtually from its birth over 40 years ago, the Alliance has been faced with crises and controversies - despite a host of problems it has remained stable and cohesive. It has remained successful because of the consensus of its members that there is no alternative to a common defense. Thus, even though the nations will face tough individual and collective economic, political and defense problems, the present framework should be able to provide an sufficient deterrent.

Responding to the test of shared risks, roles and responsibilities will be a much tougher challenge. As the events in Eastern Europe accelerate the requirement for a major force posture change, the Alliance will have the opportunity to make sweeping changes and rectify the problems of "European resentment" and "American disenchantment". However, as nations struggle to come to grips with shrinking defense budgets and force restructuring requirements, forging a new transatlantic relationship, not only in terms of allocation of resources but also in the assumption of roles, risks and responsibilities, will be a major challenge for the Alliance.

Similarly, nationalistic views have hampered the efficient use of Alliance resources by, as Thomas Callaghan observes, "wastefully duplicating one another's weapon development and production; producing a collection of forces that cannot

support one another or even operate effectively together."¹ Although the NATO nations accept the benefits of specialization and international exchange for the majority of goods, they still continue to present defense as "different" - a national responsibility². Most have come to realize that no European nation is in the position to go it alone on defense matters and cooperative ventures are essential.³ Even the United States with its "go it alone" national psyche can no longer afford to go it alone.⁴ However, even cooperative ventures, such as the Tornado, have also led to large-scale inefficiencies as nations have adopted cost-sharing arrangements designed to insure each its "fair share" of defense work while maintaining some degree of defense industrial capacity.⁵ As defense budgets shrink, overcapacity in the American defense industry coupled with European measures to protect the development of its own defense industry will also exert national pressures to maintain the inefficiencies of the past.⁶

The management of force reductions will also present problems for NATO if nationalistic attitudes continue to dominate the process. Basically force reductions can be taken in one of two ways: on an equitably national percentage basis

¹Aubin, op. cit., p. 21.

²Keith Hartley, NATO Armaments Cooperation: A Study in Economics and Politics (London: Georg Allen and Unwin, 1983), p. 85.

³Greenwood, op. cit., p. 15.

⁴Thomas Callaghan Jr., "Do We Still Need NATO?" Journal of Defense and Diplomacy, March 1990, p. 55.

⁵Hartley, op. cit., pp. 87-88.

⁶Nicholas C. Lernstock, "Continued Defense Stock Downturn Reflects Long-Term Business Outlook," Aviation Week and Space Technology, November 13, 1989, p. 81.

or in line with strategy requirements - which may or may not be equitable. Although a national percentage basis may be workable for initial CFE reductions, applying such an approach to a deep cut scenario could create residual national forces. Such residual forces would be of marginal utility, except for the maintenance of an independent national capability. If NATO nations continue to pursue balanced, national capabilities after substantial arms control reductions, inefficiencies will continue to plague the optimal use of limited Alliance resources.

Specialization as an Alternative

The second alternative, role/task specialization, is a derivative of first in that NATO forces maintain their national character. It represents an evolutionary step from the status quo in that specialization seeks "optimal use of the unique capabilities and strengths of individual Allies"¹ versus trying to maintain balanced forces with all-around capability. As an example, "one country might agree to give up having a navy and another might give up its air force and each would rely on the naval and air defense being provided by its neighbor."²

The DPC report recommends a "bottom-up" approach to "gradually shifting specific military capabilities and effecting economies...by reducing duplication of effort."³

This bottom-up approach could look something like this. The

¹NATO's Defense Planning Committee, op. cit. p. 78.

²Ibid., p. 30.

³Ibid., pp. 69.

Major NATO Commanders would define the preferred force structure to deter the threat. They then would elicit from the nations the assets for its formation, making "optimum use of the unique national capabilities and strengths" versus "having to fashion an order of battle from what the countries choose to offer, or earmark for assignment - which is typically more-or-less balanced national forces."¹

In the past support for task specialization was not widespread. Sources of reservation included traditional arguments about sovereignty and dependency as well as maintenance of national capability in key industries. The fact that "no European member of NATO can currently claim sovereign self-sufficiency in security provision"² has reduced some of the traditional barriers to this approach. The fact that all members, except France³, assign their forces to joint command in time of emergency demonstrates that no nation feels capable of acting in a defense situation as a fully independent nation. Budgetary pressures and spiraling weapons costs have already led to defacto uncoordinated specialization. For example, the United Kingdom, French and the West German air forces are planning less air-to-ground tactical air capability in favor of increased air defense resources.⁴

¹Canby and Greenwood, op. cit., p. 67.

²Ibid., p. 19.

³France is fully integrated into the NATO Air Defense Ground Environment, a system primarily of radars, computers and data transmission facilities for early warning and response to hostile aircraft/missiles.

⁴Anthony H. Cordesman, NATO's Central Region Forces (London: The Royal United Services Institute, 1988), pp. 103, 155, 213.

A commitment toward structured specialization would add significantly to the cohesiveness within the Alliance and markedly strengthen the political deterrent - an element equally as important as the military deterrent. It would formalize the interdependence and mutual dependencies among nations, furthering intertwining them in an integrative network in line with the European integration processes. Coordinated task specialization could also generate a defense posture as credible as the present deterrent and stay within the precepts of flexible response and forward defense.

Added to the political effects, specialization will also strengthen the military arm of the deterrent by reducing inefficiencies and increasing effectiveness of specialized national forces. Planned specialization would also prevent capability gaps that will arise if nations continue with uncoordinated specialization.

By moving toward specialization "...NATO could bring about a rational reallocation of roles and responsibilities (and in so doing achieve a more equitable distribution of the benefits and burdens)."¹ Steven Canby and David Greenwood argue in a study commissioned by the Department of Defense entitled Beyond Burden Sharing - A New Policy Approach that "embracing role specialization as a planning precept would provide smaller nations - and some larger ones - with a pretext for role shedding, opting out of costly or controversial

¹Ibid., p. ix.

responsibilities without compensatory increases in effort elsewhere."¹ The DPC reports that "there is ongoing and uncoordinated unilateral role changing" (the Dutch decision to opt out of the air reconnaissance mission) and that "role specialization has often in the past been an excuse for unilateral role shedding: the very antithesis of the aim of more equitable sharing of the burden."² But for role/task specialization to make a contribution to the deterrent posture it must be conducted as part of a collective plan, wherein nations simply cannot serve notice that they are opting out of specific roles.

Canby and Greenwood note that such specialization raised concerns over a division of labor that "...could mean legitimizing an American contribution to NATO consisting of capabilities for safeguarding Western interests worldwide, plus a nominal nuclear 'guarantee' and limited tactical air/troop reinforcements for Europe, but not a substantial presence in Europe."³

Regarding the effective and efficient use of national resources, task specialization would be in line with DPC recommendations for promoting "the rationalization and division of labor" to enhance the coordination of national efforts.⁴ Adopting this alternative will require that Alliance members cooperate in different ways to provide the necessary balance.

¹Canby and Greenwood, op. cit., p. 19.

²NATO's Defense Planning Committee, op. cit., p. 69.

³Canby and Greenwood, op. cit., p. 9.

⁴NATO = Defense Planning Committee, op. cit., p. 78.

It would improve the use of resources that are allocated for military purposes. Some will still have to make unique contributions, some will continue to incur additional costs and inconveniences - some by out of country stationing and others by hosting foreign troops.

An Alliance wide specialization plan could also provide the framework for a significant force build-down. By looking at who can do what best and assigning future roles, the Alliance would be able to manage force reduction apportionments in a rational manner. Specialization could also solve the problem of residual national forces after a deep cut; these forces could be combined into the specialized task areas that the particular nation assumes - creating the most effective and efficient result.¹

Collectively Owned and Operated Forces

Specialization was characterized as an evolutionary step from the present system; commonly-funded collective forces represent closer to a revolutionary step into the future. The significant difference is that forces established in this category would lose their national identity - they would in essence become supranational European security forces. Such forces, the most prominent being the NATO Airborne Early Warning Program, already exist within the Alliance, but have been limited to areas where independent and self-interested nations felt that participation was worthwhile (economic

¹Stanley R. Sloan, "A Test for the West: NATO Approaches Conventional Cuts With Mixed Emotions," Arms Control Today, August 1989, p. 11.

reasons) or when the cost of nationalism was too great.¹

They have not found wider application because NATO essentially "remains a disparate collection of national defense establishments, each largely going its own way."² This classic alliance structure gave members incentives "to maintain a full and balanced range of national forces" while trying "to maximize private gains from the NATO alliance through 'free-riding'³ and adopting weapons more likely to contribute to national welfare than to the military effectiveness of NATO."⁴ Consequently each nation has consistently faced tradeoffs between national defense and common defense.

As a result, common programs have found limited application in the operation and maintenance of military and civil headquarters, agencies and common use infrastructure requirements. This approach has also been taken for projects beyond the scope and capability of individual nations, such as the NATO Air Defense Ground Environment (collectively acquired but nationally operated), the NATO Integrated Communication System, the NATO Airborne Early Warning program and the forthcoming air command and control system (ACCS). Until recently the application of such common programs to more traditional national areas of responsibility has failed to find

¹Hartley, op. cit., pp. 36-37.

²Robert Lomer, "Security Issues Between the United States and Europe," in NATO - The Next Generation, ed. by Robert E. Hunter (Boulder: Westview Press, 1984), pp. 131.

³Free riding essentially means concealing the national true value of defense so as to obtain its benefits without contributing to its costs.

⁴Hartley, op. cit., p. 21.

favor; but, it appears to be an idea whose time has come.

However, the appearance of far-reaching incentives for reform identified in Chapter One has prompted discussion on further integrative measures. Examples include:

- "formation of a 'European Division' to facilitate joint planning, command, logistical cooperation and standardization of weapons systems";¹
- the call for a "Standing Naval Force Europe" which could lead to "...a strong United Kingdom-Dutch-German fleet consisting of surface combatants, submarines, and maritime patrol aircraft, supplemented by French, Norwegian and Danish units";²
- the procurement of a NATO air-to-air refuelling (AAR) tanker fleet along the lines of the NAEW fleet to provide in-theater AAR support; and
- the integration of German and Dutch ground forces.

General John Galvin, the Supreme Allied Commander Europe, also advocates extending the concept of collective forces. He reports that NATO should "build on the successful experience of the NATO Airborne Early Warning Force and widen considerably the number and type of those forces where nations club together to field a multinational [collective] capability."³

It is already well recognized that collective programs make a significant contribution to Alliance solidarity and cohesion.⁴ Since they represent the broadest possible cooperation for the common defense they strengthen both the political and military arms of deterrence. Further integrative

¹Wall, op. cit., p. 43.

²Henry van Loom, "New Dutch Navy Chief Sees 'Standing Naval Force Europe'." Armed Forces Journal International, September 1989, p. 12.

³General John R. Galvin, Supreme Allied Commander Europe, "Getting Better - Improving Capabilities for Deterrence and Defense," NATO Review, April 1989, p. 15.

⁴NATO's Defense Planning Committee, op. cit., p. 68.

efforts through the pooling of resources would not only build Alliance solidarity and cohesion but would be line with integrative efforts in the political and economic spheres within Europe. Collective European defense forces would also provide a deterrent within the pretexts of flexible response and forward defense.

Such forces would also easily pass the test of shared roles, risks and responsibilities. General Galvin succinctly summarizes how well collective forces would meet this criteria when he stated: "one advantage to this approach is that it is generally regarded as the fairest way of ensuring that not only the burdens of defense are equitably shared, but the operational benefits are equally distributed."¹ The DPC Report also agrees that this approach is particularly significant in the sharing of roles, risks and responsibilities.²

As noted, NATO in its present form has been inefficient in its armed forces and weapons markets. Nationalism and the cost of maintaining a degree of independent capability have led to wasteful duplication of effort in many areas. The adoption of truly collective forces would promote commonality in tactics, weapons, training, and logistics. Taken to its utmost potential it would defacto result in standardized and interoperable equipment procured through a coordinated weapons production process without wasteful duplication. Such an approach would lead to economies of scale, eliminate past

¹Galvin, op. cit., p. 15.

²NATO's Defense Planning Committee, op. cit., p. 38.

inefficiencies and optimize limited defense expenditures.

As a framework for structuring force reductions, collective forces offer all the advantages of force specialization plus one significant feature. Collective forces, being integrative in character, represent another measure to inextricably bind European nations together to minimize past national rivalries and prevent any one nation from becoming threatening. Along the same lines, the so-called "German question" - its status as a divided nation - will loom larger in the future. One major goal of the EC must be "...to strengthen its interlocking trade and financial ties with West Germany--leading to greater political and security cohesion--to anchor the Federal Republic firmly to the West, countering any tendency for it to seek a Bismarckian 'middle ground' in central Europe."¹ Firmly entrenching West Germany in a collective security arrangement should dampen fear of a German resurgence.

Assessing the Alternatives

In terms of an overall assessment, both the status quo and specialization alternatives do not meet the test of the limited criteria established in this chapter. The status quo alternative falls short in the area of shared risks, roles and responsibilities as well as a framework for optimally structuring force reductions. Specialization also does not meet the criteria of shared risks, roles and responsibilities

¹Hormats, op. cit., p. 87.

since it (like the status quo) implies a national approach and hence an unequal distribution of burden and responsibility sharing. Multinational forces seem to hold the greatest promise - they also have the greatest policy implications for the nations. Selecting this course will involve political compromise on a scale never seen before in the Alliance.

Although the previous represents a somewhat analytical attempt to choose a future course of action, in the end it will very likely boil down to a very subjective decision. Given the impending acceleration in the European political and economic integration process, the requirement to maintain some sort of deterrent capability vis-a-vis the Soviet Union, and the necessity of a more cooperative approach, expanding the role of collective forces clearly seems to be an agenda item for the Alliance. Although the allies have in the past pursued a collective security posture, they have never made a full fledged attempt to create a genuine coalition posture. Time has never been better for such an attempt and the next chapter will examine how this coalition posture could unfold.

CHAPTER III

COLLECTIVE CENTRAL REGION AIR DEFENSE FORCE

In looking for areas to apply the coalition concept one should consider several factors. If the ultimate objective is to move toward collective defense forces it is important to select an area that will serve as a catalyst for subsequent force restructuring. The area selected therefore should represent a bold initiative to overcome the national sovereignty barrier, not just an area where the cost of individual nationalism is too high. Since the present focus of conventional arms control is the Central Region and given the impending 195,000 personnel limitations for Soviet and U.S. forces in this region, it would also be appropriate to limit the forces selected to this area. In so doing the delicate issues involved between the richer CR alliance members and the poorer ones in the southern region could also for the time being be avoided.

With this in mind, this study suggests that the integration of national forces into collective forces should begin with the CR air defense system. Air defense forces represent a good starting point for the following reasons. Being basically defensive in nature, the impact of present arms control negotiations on air defense forces should be minimal. And, if the process does evolve towards total defensive restructuring of all military forces as the Soviets propose,

air defense forces will require little to no restructuring. The other primary reason for recommending air defense forces stems from the level of integration, albeit it along national lines, of the present CR air defense system. The present system will provide the necessary framework; many of the current initiatives to overcome limitations and shortfalls will also be applicable to a collective air defense forces.

Defensive Forces and Current Trends

Air defense forces are not likely to be markedly affected by the CFE negotiation process. CFE is aimed at strengthening conventional stability by addressing imbalances and asymmetries while significantly lowering levels of general purpose forces with offense-oriented capabilities, namely tanks, artillery, armoured troop carriers (ATCs), strike aircraft and combat helicopters. As we shall see, air defense assets are not likely to be significantly affected by CFE.

Table One indicates that the positions on ground forces equipment are relatively close while aircraft will require considerable negotiation. Whereas NATO addresses combat aircraft as a total sum and seeks a 15% reduction below current NATO levels, the WTO only addresses strike aircraft. The problem area will be fighter/interceptor aircraft since the WTO has roughly 3,660 dedicated fighter/interceptor aircraft west

of the Urals¹ and has consistently refused to include these so-called defensive systems in the negotiations. Dealing with this WTO preponderance in fighter interceptors will be a central negotiation area; the outcome of which could well mean an agreed limit at present WTO levels, leaving NATO "room at the top."²

Similarly, although not accepted at the official level, there is (particularly in Europe) a strong advocacy for shifting to a totally defensive posture. General Secretary Gorbachev has not only advocated changes in doctrine and force levels, but also in the very structure of conventional forces.

"We see the way to secure reasonable sufficiency in this: that the states would not possess military forces and armaments above that level that is indispensable for effective defense. and also in this: that their military forces have a structure that would provide all necessary means for repulsing potential aggression but at the same time would not permit them to be used for the unfolding of offensive missions."³

With this Soviet new thinking on reasonable sufficiency and their stated intentions to defensively restructure their forces concepts, such as "nonoffensive," "defensive" and "nonprovocative" defense, are receiving serious attention. Since both the Soviet Union and the European Study Group on Alternative Security Policy advocate moving toward

¹Marlies Ter Borg and Wim A. Smit, *Non-Provocative Defense as a Principle of Arms Reduction and Its Implication for Assessing Defense Technologies* (Amsterdam: Free University Press, 1989), p. 186.

²Dean, *op. cit.*, p. 119.

³Albrecht A. C. von Mueller and Andrzej Karkoszka, "An East-West Negotiating Proposal," *Bulletin of Atomic Scientists*, September 1988, p. 41.

unambiguously defensive postures these concepts, although in very early stages of development, will have to be taken seriously and addressed. Should it evolve to a position where "both sides [have] forces that are stronger in defense than those in of the opponent when used in attack,"¹ air defense forces would still be an integral part of any security arrangement. Such an arrangement could follow the examples of Sweden and Switzerland which use "...robust, versatile interceptor aircraft; fast-attack naval craft; and defensively oriented ground forces, backed up by large reserves...."²

Integration and Commonality of Equipment

Early in the history of the Alliance, the nations recognized the need for integrating their efforts in the air defense arena. Major General Joerg Bahnemann, Vice Chairman of the NATO Air Defense Committee characterized the air defense system as follows:

"NATO decided in the fifties to integrate air defense forces of all allies, and finance commonly the ground equipment on the territory of the respective nations. SACEUR was charged with the responsibility for these forces and the planning for their operations even in peacetime. In the provision of interceptors and SAM [surface-to-air missile] systems, mainly procured from the USA or produced under license in Europe, a comparatively high degree of standardization of equipment and operational procedures was then reached."³

This integrated approach permitted "...comprehensive planning

¹Bellamy, op. cit., p. 16.

²Paul Rogers, "The Nuclear Connection," Bulletin of Atomic Scientists, September 1988, p. 22.

³Joerg A. Bahnemann, Maj Gen German Air Force, "Extending Air Defence - A Test Case for the Western Alliance," NATO Review, June 1989, p. 17.

and coordinating of air command and control aspects of air defense..." as well as the "...harmonization of complementary national weapons programs."¹ Airspace control plans detail coordinated procedures for safe passage and missile/fighter engagement zones for active air defense.

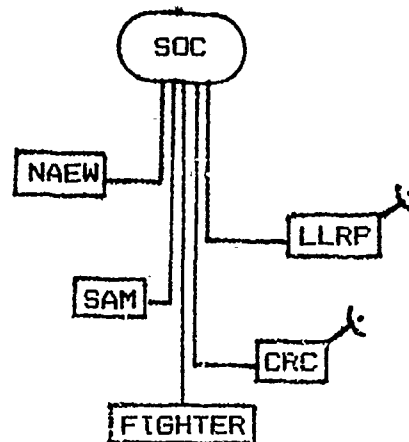
Central Region air defense integrates national interceptor aircraft, surface-to-air missiles (SAMs), and air defense artillery with early warning/ground controlled intercept (GCI) facilities via a complex command and control system, known as the NATO Air Defense Ground Environment (NADGE). Most of the CR air forces fall under the command of Allied Air Forces, Central Europe (AAFCE). AAFCE is further subdivided into Second Allied Tactical Air Force (2ATAF) and Fourth Allied Tactical Air Force (4ATAF). 2ATAF is responsible for the air defense of the FRG south of Schleswig-Holstein and north of Gottingen-Liege axis²; it is supported by national forces from Belgium, Britain, the Netherlands, Germany and the United States (one F-15 squadron in the Netherlands). 4ATAF's air defense area encompasses southern Germany and it is supported by forces from Canada, Germany and the United States.

Each ATAF is primarily a headquarters; it delegates the air defense mission to its Sector Operations Center(s) (SOCs).

¹The North Atlantic Treaty Organization Facts and Figures, Brussels: NATO Information Service, 1984, p. 184.

²Hugh Farrington, Strategic Geography: NATO, the Warsaw Pact and the Superpowers, Second Edition, (London: Routledge, 1989), p. 343.

The SOC directs the activities of the Control and Reporting Centers (CRCs), Low Level Reporting Post (LLRPs), SAM units and fighters to detect, track, identify, report and intercept/destroy enemy targets. The NATO Airborne Early Warning (NAEW) E-3A aircraft interface with the SOC.



The Danish Air Force and the German Air Force assets defending Schleswig-Holstein fall under CINCNORTH's subordinate Air Baltic Approaches (AIRBALTAP). And although French forces do not formally participate in Central Region air defense, French tactical air command and control assets are integrated into NADGE.

The integrated air defense concept presently employs the Hawk in a forward belt, while Nike (and Patriot as they come on line) are employed in rear areas, with fighters beneath and behind. Missiles and anti-aircraft artillery (AAA) are deployed for point defense throughout rear areas. Army units have their own organic short range air defense systems for immediate protection in the forward combat zones.

Commonality among Central Region SAM assets is very high. Table Three depicts the types of medium SAMs operated in this area. Nike-Hercules is obsolete, unable to cope with modern fighter maneuvers and suppression techniques. Improved

Hawk (IHawk) "is far less vulnerable to countermeasures and suppression than Nike-Hercules, but it requires nine separate radar units to do the job of one phased array radar on the Patriot."¹ Patriot is also highly mobile in contrast to Hawk and has growth potential to become an effective anti-tactical ballistic missile system.²

In the field of fighter interceptors, CR air forces do not have the same high degree of commonality of equipment as with the medium SAM forces (see Table Three). As General Bahnemann notes, "...one must gain the impression that the most common interest for NATO nations is not to provide the greatest defense capability at reasonable cost, but rather the desire to avoid compromises of national aviation industries."³ Of these assets the F-15, CF-18, Mirage 2000 and FGR2 have all weather look down/shoot down capability. The FRG is planning to modernize the avionics on its F-4Fs to give it an all weather capability, similar to that of the British FGR2. Non-U.S. CR F-16s are A and B models which do not have an all weather capability while the U.S. has been steadily upgrading to C/D models with this capability. And the introduction of the Advanced Medium Range Air-to-Air Missile and eventually the European Fighter Aircraft will add significant all weather, all aspect capability to the air defense system.

¹Cordesman, op. cit., p. 238.

²Ibid.

³Bahnemann, op. cit., p. 11.

Recognized Area of Concern

Despite an integrated defense network with a high degree of commonality of equipment and standardization of procedures among the various national assets, the CR air defense system has limitations which have made it a recognized area of concern. If the present system was adequate and required no or little improvement there would be less impetus to mount the type of radical change advocated here. But CR air defense does have a number of glaring deficiencies, none of which though are outside the technological capabilities of the Alliance.

The introduction of modern all weather interceptors and the development of a new generation of SAMs (Patriot) have already prompted the Alliance to contemplate a new air defense concept that takes advantages of these increased capabilities. Former limitations, such as the inability of fighters and SAMs to operate in the same airspace, may no longer be valid. The perceived ability of advanced WTO weapons systems to overwhelm and penetrate localized areas of the forward SAM belt and then transit into the less well defended rear areas, bypassing much of the Alliance's SAM capability, has brought the forward SAM belt under scrutiny. Although limitations to be imposed on offensive aircraft by the CFE process will not necessarily simply the air defense problem, they will alter the threat assessment which served as the basis for the present concept.

Traditionally the weakest link in the air defense system has the lack of an adequate identification friend or foe (IFF)

system. The NATO technological solution to this problem is the NATO Identification System (NIS), the IFF Mark XV system. In principle, the NATO nations have agreed to purchase this new system; however, no timetable has been established and modification costs for some 10,000 aircraft and helicopters will preclude some systems from being retrofitted.¹ If arms control significantly limits total numbers of aircraft and helicopters, modification costs will be markedly diminished, making it possible to address this problem.

Similarly, NATO cannot presently cannot presently integrate data from radar, IFF systems, electronic support measures and other sensors to form a total picture of the air battle. The need for ACCS was recognized in the earlier 1980s and in 1988 the NATO Air Defense Committee delivered the final architecture for this \$20 billion program, making realization possible by the mid-1990s.² The ACCS represents the largest common infrastructure undertaken to date and when in place will integrate all source data to provide a total airspace picture.

Another problem with NATO air defenses is that they have traditionally been viewed as a means to counter offensive enemy aircraft and structured to inflict maximum attrition on attacking aircraft, while unable to cope with ballistic missiles. Although ballistic missiles have been in the NATO inventory for over 30 years, NATO still does not have the

¹Cordesman, op. cit., p. 246.

²Bahnemann, op. cit., p. 11.

capability to defend against these systems.¹ This is a significant shortfall since tactical ballistic missiles are not included in CFE and the WTO has a "superiority of over 5000 surface-to-surface missiles under 500 kilometer range."² Although the Patriot SAM system was deliberately designed not to function in the tactical anti-ballistic missile mode, "...impressive options exist to upgrade the system, [but] they cannot be fielded before the mid-1990s."³

Maldeployment and modernization of CR SAM systems is also an area of concern. As one analyst noted:

"The Belgian, French and Dutch portions of these forces are badly deployed if they are to cover NATO's forward area, and Britain and Canada do not contribute any such forces. NATO has still to agree on a convincing improvement plan to replace the rest of its HAWK and obsolescent NIKE Hercules to cover today's air threat, much less the combined air-breathing and ballistic missile threat...."⁴

With the combat effectiveness of the aging HAWK declining, only three nations are fielding the modern Patriot SAM system. In the field of fighter interceptors, Belgian, Dutch, German⁵ and Danish aircraft lack the avionics and radar and weapons stocks and types needed to sustain high sortie rates to fly night/all weather air defense missions.

These are recognized grave deficiencies which NATO will

¹Juergen Hoeche, "Extended Air Defense in Europe," NATO's Sixteen Nations, July 1987, p. 41.

²Dean, op. cit., p. 120.

³Cordesman, op. cit., p. 44.

⁴Ibid., p. 24.

⁵The German Luftwaffe plans to upgrade their F-4F fleet to all-weather capability as an interim measure until the European Fighter Aircraft can be procured.

eventually have to address. The technology is available to overcome them, but they cannot be achieved by monopolistic pressure from the United States. The impetus has to come from the Europeans; they must conceptualize how Central Region air defense should be structured. To develop collective CR air defense forces this study recommends that an incremental approach be followed.

AN INCREMENTAL APPROACH

This incremental approach could consist of three phases which in terms of timing could correspond roughly to the three CFE phases as proposed by the Warsaw Treaty Organization (WTO) and outlined in Table One. Phase one, the concept phase, would consist of the negotiations and staffing necessary to lay the ground work for actual implementation in the subsequent phases. During the second phase, the intermediate phase, implementation would commence with those assets readily lending themselves to conversion from national to common funding. Those measures that must wait for distant prerequisites and cannot be accomplished in the intermediate phase, such as replacement of present capability, would take place in the final, long term phase.

The Concept Phase

The goal of the concept phase has to an additional NATO treaty addressing the new organization of Central Region air defense forces and what powers are to be delegated to NATO institutions. The initial step in developing such a treaty is

to establish or charge an existing body with the charter for developing the guidelines for change. Assembling a group of well-selected personnel from the nations and expertises required who identify themselves with the need to replace the existing collective system with supranational forces may lead to better results than using an existing structure which may be hesitant to reform itself. In looking to the NAEW program as an example, the autonomy and competence of the program management agency was certainly key to reaching a consensus compromise.¹

A brief look at the representation of this group will indicated some of the actions it will need to address. The obvious candidates certainly include Belgium, the Netherlands, Luxembourg and the Federal Republic of Germany, who own the airspace over which and the territory upon which air defense forces will operate. Denmark, despite its ties to the Nordic community, is becoming increasingly dependent on the E.C. and it would be militarily advantageous to include it in a new air defense concept. Denmark's participation will require a major change in the NATO command structure.

If forces within Europe are to determine the security concept, then France should also participate. Although France's interest and participation is uncertain, development of common security policies and forces might smooth the path of France back into the military structure. "France is

¹Arnold Lee Tessner, Politics of Compromise NATO and AWACS, Washington D.C.: National Defense University Press, 1988, p. 160.

especially cognizant of the need for close links with Germany, and between Germany and the rest of Western Europe."¹ As a leading force in reducing internal barriers in the EC and promoting closer military ties with the FRG, France (which is already integrated into the NADGE and is forming a collective force brigade with the FRG) may well elect to participate in a commonly funded air defense force structure.

The United Kingdom also has a vested interest in Central Region air defenses since they, along with those of AIRBALTAP, represent the first line of air defense for Great Britain. Canada, which has very capable CF-18 forces stationed in Germany and participates in the NAEW program, should also be encouraged to participate.

"To forestall charges of superpower collusion and give a boost to Western Europe's drive for political unity...the Europeans should be encouraged to play the lead role for the alliance"² with the United States and Canada in supporting roles. The concept of European security that emerges cannot be the product of American vision, but must stem rather from forces within Europe itself.³ The US has an enduring responsibility to remain as a counterweight to Soviet nuclear capabilities and its permanent geographical advantages, but arms control limitations as well as budgetary pressures will substantially reduce the size of the American presence in

¹Ibid., p. 87.

²Alan Tonelson and Christopher Layne, "Divorce, Alliance-Style," The New Republic, June 12, 1989, p. 25.

³Hormats, op. cit., p. 83.

Europe. Similarly, Canada's military force structure is also under review and its presence in Western Europe is likely to be scaled back significantly. Therefore, the United States and Canada should continue to support the Alliance with national assets.

Once assembled representatives from these nations will have a full agenda. Major agenda items could include (but are not limited to):

- the air defense concept
- application areas/pooling of assets
- funding
- implementation timetable
- technology

It is imperative that future, not present tasks serve as the basis for planning the restructuring of the CR air defense system. Consequently a comprehensive review should be initiated (if not already underway) to determine future air defense requirements in light of modern technology, an evolving threat and arms control limitations. This new concept will serve as the basis for earmarking national assets for transfer to supranational authority.

It is beyond the scope of this paper to precisely define this new concept, but certain generalizations about its structure can be made. Its command structure should correspond to the present NATO structure (while making provisions for a unified Germany). If Denmark is included, an ATAF type

structure should be adopted for the Danish area. The dimensions of the air defense ground environment for CR air defense should be roughly the same as now. Consideration should be given to clustering SAMs (versus the present forward SAM belt concept) along the borders and at rear-area sites to protect both infrastructure and forward defense formations. Regarding interceptor aircraft, The Study Group on Alternative Security Policy (SAS), which has developed the most detailed and comprehensive model of nonoffensive defense in Europe, advocates a force of roughly 500 interceptors.¹ This would represent a good starting point until the outcome of the CFE negotiations can be molded into the equation. These aircraft would be employed to cover the spaces between the SAMs and to provide flexible concentration. Finally, the future system should continue and further expand, political conditions permitting, its present modernization efforts.

Once the concept has been developed the next step will be to identify those national assets required to support the new air defense system. Given the increased warning times that should result from the CFE process, reserve forces (either national or collective) could assume exclusive responsibility for certain functions, such as rear-area air defense. And some functions, such as a portion of the command and control, SAM and interceptor forces not required for day-to-day peacetime operations, could also be comprised of mobilization reservists.

¹"The SAS Approach to Air and Coastal Defense," Defense & Disarmament Alternatives, February/March 1989, p. 4.

The force requirements process should also focus on pooling common assets to achieve maximum effectiveness. Reallocation of staff positions to give the Europeans a greater role in the decision-making process should also be considered. For example, there may be a good argument for keeping U.S. and Canadian forces outside the collective European defense structure in an augmentation role. This would imply that these nations would not occupy key command positions.

If this program follows the path of NAEW it will undoubtedly encounter similar problems in negotiating complex agreements for which neither a model nor universal commitment exists. According to Arnold Lee Tessner in Politics of Compromise NATO and AWACS, solutions to these problems could only be found by men of vision who at times had to ignore "pesky details" that could (and would) prevent accomodation.¹ NAEW may serve as a relevant cost sharing model since the program directors could not reach consensus using traditional burdensharing formulas and had to resort to innovative measures (such as using current economic indices rather than traditional cost formulas to compute cost shares) to reach a compromise.² Since air defense is already funded by each nation to some degree, cost sharing for the collective system could use present national outlays as a basis. As assets reverted to collective responsibility individual nations would contribute incrementally until reaching their national cap predetermined

¹Tessner, op. cit., p. 105.

²Tessner, op. cit., pp. 14, 62 and 66.

in the concept phase. This cap should be noticeably less than present expenditures since increased defense expenditure efficiency is one of the major goals of this undertaking.

Those elements identified for restructuring can be grouped into categories:

- headquarters and staff agencies
- units scheduled for/undergoing equipment conversion
(Nike)
- units to relocate under new air defense concept
(CRCs, Patriot and IHawk units)
- units converting by personnel attrition
(NADGE elements, nonrelocating fighter/SAM units)
- units to be pooled
(Belgium, Dutch and Danish F-16s; Patriot/IHawk)
- units converting with future modernization
(German F-4F, British FGR2)

A timetable outlining conversion of national assets can be developed once the CR air defense masterplan has been formalized. Common assets, i.e. F-16 aircraft and Hawk/Patriot SAMs, should be pooled at the outset while others may have to await modernization.

The Intermediate Phase

The intermediate stage would essentially be a transition period entailing the transfer of those assets earmarked for the CR air defense force from national to collective authority. It would cover a two to three year period, corresponding to the

proposed Phase II of the CFE process. There would be no national cuts in those forces earmarked for the CR air defense force - any national cutbacks and savings resulting from a CFE agreement should be realized from those forces not required to support the new concept.

The Long-Term Phase

This phase would mark the final measures to convert the CR air defense system to collective responsibility. Final conversion candidates would include those systems which for support and cost reasons, i.e. German F-4F and British FGR2 aircraft, should remain under national control until they reach the end of their lifecycle and require replacement. At that time they would be converted to collective responsibility and modernized as a part of the collective modernization force program.

CONCLUSION

In the past year we have witnessed unprecedented change in the world political order. The disintegration of the Communist bloc has ushered in new political realities that mandate new thinking and approaches to European security. The democratization of the eastern European countries has not only created a unique opportunity to consider alternative security concepts, but it has also given impetus to the acceleration of the European Community integrative process. In the past this process had been primarily concerned with political and economic integration; but, it no longer appears possible to separate security considerations from the integrative process.

Inevitably, U.S.-European relations will be altered as tensions with the Soviet Union ease and as the European Community becomes more self-confident. As the Soviet threat diminishes so will America's commitment to bear the brunt of the defense burden in Europe. European resentment of American superpower hegemony and American disenchantment with the sharing of risks, roles and responsibilities in Europe is certain to usher in a new order.

The new security order will offer several paths. Staying with the present nationalistic way of doing security business will as this analysis has shown sharply contrast with the integrative process. It will also virtually guarantee that inefficiencies of the past are perpetuated. Evolving to national role/task specialization represents only a partial step toward integration.

If the Europeans are indeed serious about integration then the adoption of collective security forces should be vigorously pursued.

Once this commitment is made there are areas where this approach could be applied immediately without awaiting the outcome of arms control negotiations. This study has suggested that CR air defense is an area sufficient to overcome the national sovereignty barrier as well as an area that should be only minimally effected by either arms control or major strategy changes.

The time is right and the conditions are right to create a partnership of equals within Europe. Western Europe will not in the foreseeable future become a military superpower; it will continue to remain closely allied to the US. It can however assume greater responsibility for its own defense. By integrating its defensive resources it can pose a credible deterrent to Soviet military capability while making sure that past national rivalries remain subordinant to community interests.

When change can no longer be held back and becomes imminent, it is imperative to be out in front and molding it to suit our mutual security interests. It is vital that the United States and its NATO allies seize this unique opportunity to mold a transatlantic partnership that will accomodate our mutual security interests and be acceptable to the public constituencies on both sides of the Atlantic. The time has come to advocate a collective European pillar based on far greater parity and partnership than was

evident in the past.

TABLE ONE: CONVENTION ARMED IN FORCES EUROPE¹

<u>Warsaw Pact</u>	<u>NATO</u>
Items to be Covered in Negotiations	
Tanks	20,000
Artillery	16,500 - 24,000
ATCs	28,000
Land-based Aircraft	4,600
Strike Aircraft	1,500
Combat Helicopters	2,250
US/Sov Manpower (ATTU region)	195,000
Phases of Reductions	
Phase I: 2-3 yrs (1991-94)	No explicit mention
Reduction to 10-15% below lowest current figure	Reductions to 5-10% below lowest current figure
Phase II: 2-3 yrs (1994-97)	Possible future cuts
Further 25% cuts (500,000 per side)	
Phase III: Move to strictly defensive forces. Ceilings on all types	
Zones of Reduction	
Reduction corridor along inter-alliance border (Central Europe)	Within ATTU area, 3 concentric subzones with progressively lower sublimits on tanks, ATCs, artillery.
Possible additional zones	
No tactical nuclear weapons	No mention nuclear weapons
Single-Nation Limit	
None; each alliance decides distribution of reductions within equal collective ceilings	No country may have more than 30% of all artillery, ATCs, & artillery held by sides
Out-of-Country Limit?	
None	Neither alliance to have more more than 3,200 tanks, 1,700 artillery, and 6,000 ATCs outside national boundaries

¹Extracted from "Breaking With Convention: The Start of New European Force Talks," p. 7 and Remarks by Gen Robert T. Herres before Senate Armed Services Committee on NATO Conventional Arms Control (1 Jun 89).

TABLE TWO: MEMBERSHIP

	<u>NATO</u>	<u>EUROGROUP</u>	<u>EC</u>	<u>IEPG</u>	<u>WEU</u>
Belgium	X	X	X	X	X
Canada	X				
Denmark	X	X	X	X	X
Fed Rep of Germany	X	X	X	X	X
France	X*		X		X
Great Britain	X	X	X	X	
Greece	X	X		X	
Iceland	X*				
Italy	X	X	X	X	X
Luxembourg	X	X	X	X	X
Norway	X	X		X	
Portugal	X	X		X	
Spain	X*			X	
The Netherlands	X	X	X	X	X
Turkey	X	X		X	
United States	X				

*Not fully integrated into NATO military structure.

Eurogroup: Informal group of European NATO nations.

EC: European Economic Community

IEPG: Independent European Programme Group

WEU: Western European Union

TABLE THREE: AIR DEFENSE WEAPONS¹

SURFACE-TO-AIR MISSILE SYSTEMS

	BE	CA	DA	FR	FRG	NL	UK	US
NIKE	6/***				3/216**			
HAWK				3/60				
IHAWK	2/39		8/48		3/216	12/72		
PATRIOT					28/896*	6/160*		12/384*

* Planned acquisition

** To be retired/modernize with Patriot

*** To be retired/no modernization

AIR DEFENSE INTERCEPTOR AIRCRAFT

	BE	CA	DA	FR	FRG*	NL	UK	US*
F4/FGR2					4/60		/70	
F-15								4/96
F-16	2/36 [2/44]*		1/16 (3/48)			1/18 (2/36)		- (6/144)
F-18		/44						
F-35			1/16					
Mirage				11/180				

NOTE: - Aircraft in parentheses are dual role
(fighter-interceptor and fighter-attack)
* Only includes those aircraft stationed in FRG
and NL
BE, DA and NL F-16s are A/B models; US F-16s
are C/D models

¹Extracted from Anthony H. Cordesman, NATO's Central Region Forces.

BIBLIOGRAPHY

- Alshire, David and Michael Moodie. "NATO Armaments Cooperation - An Action Plan for the Future." NATO's Sixteen Nations, Vol. 32, No. 8 (December 1987/January 1988), pp. 12-15.
- Afheld, Horst. "New policies, old fears." Bulletin of Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 24-27.
- Agnelli, Giovanni. "The Europe of 1992." Foreign Affairs (Fall 1989), pp. 59-70.
- Aubin, Steven. "The NATO Alliance Needs a Plan for the Future...Now." International Combat Arms, Vol. 7, No. 2 (March 1989), pp. 21-25.
- Bahnemann, Joerg. "Extending Air Defense - A Test Case for The Western Alliance." NATO Review, No. 3 (June 1988), pp. 9-13.
- Bell, James D. "Competing for Global Markets in Post-1992 Europe." Signal, Vol. 43, No. 10 (June 1989), pp. 139-144.
- Boserup, Anders. "A way to undermine hostility." Bulletin of Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 16-19.
- "Breaking With Convention: The Start of New European Force Talks." Arms Control Today, Vol. 19, No. 3 (April 1989), pp. 3-9.
- Callaghan, Thomas Jr. "Do We Still Need NATO?" Journal of Defense and Diplomacy, Vol. 7, No. 4, (March 1990), pp. 51-55.
- Canby, Steven L. and David Greenwood. Beyond Burden-Sharing: A New Policy Approach. Report submitted to Office of Assistant Secretary of Defense (ISP). Washington D.C., June 12, 1989.
- Carlucci, Frank C. Report on Allied Contributions to the Common Defense. A Report to the United States Congress. Washington D.C.: Office of the Secretary of Defense, April 1988.
- Cordesmann, Anthony H. NATO's Central Region Forces. London: The Royal United Services Institute, 1988.

- Crowe, Virginia. "The Power of the Eurocrats." Government Executive, Vol. 21, No. 2 (February 1989), pp. 21-23.
- Dean, Jonathan. "How to reduce NATO and Warsaw Pact forces." Survival, Vol. XXXI, No. 2 (March-April 1989), pp. 109-122.
- Deger, Saadet. "World Military Expenditure." SIPRI Yearbook 1989: World Armaments and Disarmament. New York: Oxford University Press, 1989, pp. 133-155.
- "European Arms Control After the NATO Summit." Arms Control Today (June/July 1989), pp. 3-8.
- European Defense Cooperation. Report of a working party on the question of a European Defense Force and other possible means of European defense cooperation. Federal Trust for Education and Research.
- Farrington, Hugh. Strategic Geography: NATO, the Warsaw Pact and the Superpowers. Second Edition. London: Routledge, 1989.
- Fieldhouse, Sir John, Admiral of the Fleet, GCB, GBE, Chief of the Defense Staff. "Flexible Response--A Credible Defence Posture?" RUSI Journal, Vol. 133, No. 2 (Summer 1988), pp. 3-4.
- Forsberg, Randall. "Toward a Nonaggressive World." Bulletin of Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 49-54.
- Ferenczy, Gabriel I. "NATO Identification System." NATO's Sixteen Nations, Vol. 33, No. 5 (September 1988), pp. 52-54.
- Fuhrman, Peter. "Bringing the Boys Home?" Forbes (November 28, 1988), pp. 98-102.
- Galvin, John R., General, Supreme Allied Commander Europe. "Getting Better - Improving Capabilities for Deterrence and Defense." NATO Review, No. 2 (April 1989), pp. 11-16.
- , "The Continuing Validity of Flexible Response and Forward Defense." RUSI Journal, Vol. 133, No. 2 (Summer 1988), pp. 5-9.
- Greenwood, David. "Constructing the European Pillar: Issues and Institutions." NATO Review, Vol. 36, No. 3 (June 1988), pp. 13-17

- Hartley, Keith. NATO Arms Cooperation: A Study in Economics and Politics. London: Georg Allen and Unwin, 1983.
- Harvey, Hal. "Defense Without Aggression." Bulletin of Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 12-15.
- Head, Simon. "The Battle Inside NATO." The New York Review of Books, Vol. XXXVI, No. 8 (May 18, 1989), pp. 41-46.
- Hitchens, Theresa. "NATO Leaders Seeking Path to Unify Europe." Air Forces Times. 4 December 1989. p. 26.
- Hoeche, Juergen. "Extended Air Defense in Europe." NATO's Sixteen Nations, Vol. 32, No. 4 (July 1987), pp. 41-47.
- Hormats, Robert D. "Redefining Europe and the Atlantic Link." Foreign Affairs (Fall 1989), pp. 69-91.
- House, Karen Elliot and E.S. Browning. "Mitterrand Sees Europe at the Crossroads." The Wall Street Journal, Vol. CCXIV, No. 101 (November 22, 1989), p. A6.
- House of Representatives Committee on Armed Services. Report of the Defense Burdensharing Panel. Washington D.C.: Government Printing Office, 1988.
- "IDDS-Rand Workshop: Defensive Restructuring of Ground Forces." Defense and Disarmament Alternatives, Vol. 2, Nos. 2 and 3 (February/March 1989), pp. 1-12.
- Isaacson, Walter. "Is One Germany Better Than Two." Time Magazine (November 20, 1989), p. 41.
- "Joint US-Soviet Seminar on Conventional Arms Reduction in Europe." Institute for Defense and Disarmament Studies, Vol. 2, No. 1 (January 1989), pp. 3-10.
- Kernstock, Nicholas C. "Continued Defense Stock Downturn Reflects Long-Term Business Outlook." Aviation Week and Space Technology (November 13, 1989), p. 81.
- Komer, Robert. "Prospects for Effective Conventional Defense in Europe." Paper prepared for 1983-84 International Security Studies Program Core Seminar held at The Wilson Center on October, 1984.
- "Security Issues Between the United States and Europe." NATO - The Next Generation. Edited by Robert E. Hunter. Boulder: Westview Press, 1984.

- Leibstone, Marvin. "NATO and U.S-European Industrial Cooperation." Signal, Vol. 43, No. 2 (October 1988). pp. 41-48.
- Levine, Robert A. NATO, the Subjective Alliance. Los Angeles: Rand Corporation, 1988.
- Machiavelli, Niccolo. The Prince. New York: New American Library, 1980.
- Magnuson, Ed. "Crunching Gorbachev's Numbers." Time, Vol. 132, No. 25 (December 19, 1988), pp. 24-25.
- McCain, John. "Saving Our Alliances: the Real Issue in Burden-sharing." Armed Forces Journal International (June 1989), pp. 90-98.
- Meehan III, John F. "NATO and Alternative Strategies." Parameters, Journal of the US Army War College, Vol. XVI, No. 1 (Spring 1986), pp. 14-23.
- Mendelsohn, Jack. "Gorbachev's Preemptive Concession." Arms Control Today (March 1989), pp. 10-15.
- Morrison, David C. "Fortress Europe - Who Should Pay for its Defense?" Government Executive, Vol. 21, No. 2 (February 1989), pp. 20-21.
- NATO's Defense Planning Committee. Enhancing Alliance Collective Security - Shared Risks, Roles and Responsibilities in the Alliance. Brussels: The North Atlantic Alliance, 1988.
- Nulty, Peter. "How The World Will Change." Forbes, Vol. 121, No. 2 (January 15, 1990), pp. 44-54.
- "Promises, Promises." The Montgomery Advertiser (November 24, 1989), pp. 12A.
- Report of a Working Party on the Question of a European Defense Force and Other Possible Means of European Defense Cooperation. European Defense Cooperation. Trust for Education and Research, 1978.
- Roesler, Rolf. "Europe 1992--A German View." Armed Forces Journal International (September 1989), pp. 4P 52.
- Rogers, Paul. "The nuclear connection." Bulletin . Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 20-23.
- Roos, John G. "Europeans Trust US Conventional Shield but Would Favor 'Euro-Nuclear' Force." Armed Forces Journal

- International (September 1989), pp. 24-25.
- Schmaehling, Elmar. "German Security Policy Beyond American Hegemony." World Policy Journal, Vol. VI, No. 2 (Spring 1989), pp. 371-384.
- Seignious, George M., USA (Ret.). "World Peace Requires Two Tracks for US, Soviets." ROA National Security Report, Vol. 7, No. 2 (February 1989), pp. 8-11.
- Sloan, Stanley. "A Test for the West: NATO Approaches Conventional Cuts With Mixed Emotions." Arms Control Today, Vol. 19, No. 8 (August 1989), pp. 8-12.
- . NATO's Future - Towards a New Transatlantic Bargain. Washington D.C.: National Defense University Press, 1985.
- Snyder, Jack. "Limiting Offensive Conventional Forces." International Security, Vol. 12, No. 4 (Spring 1988), pp. 48-77.
- Ter Borg, Marlies and Wim A. Smit (ed). Non-Provocative Defense as a Principle of Arms Reduction and its Implications for Assessing Defense Technologies. Amsterdam: Free University Press, 1989.
- Tessmer, Arnold Lee. Politics of Compromise NATO and AWACS. Washington D.C.: National Defense University, 1988.
- The Atlantic Council of the United States. NATO to the Year 2000: Challenges for Coalition Deterrence and Defense. Washington D.C.: The Atlantic Council, 1988.
- "The SAS Approach to Air and Coastal Defense." Defense & Disarmament Alternatives, Vol. 2, Nos. 2 & 3 (February/March 1989), p. 4.
- The Eurogroup. Western Defense: The European Role in NATO. Brussels: The Eurogroup Secretariat, 1985.
- "The Future Tasks of the Alliance (Harmel Report)." Jane's NATO Handbook 1988-89. Surrey: Jane's Information Group Limited, 1988.
- "The General's New Order for Europe." An Interview with Andrew J. Goodpaster. Arms Control Today, Vol. 19, No. 4 (May 1989), pp. 4-8.
- "The Kohl War." The New Republic, Vol. 200, No. 21 (May 22, 1989), pp. 7-8.
- The North Atlantic Treaty Organization Facts and Figures. Brussels: NATO Information Service, 1984.

- Tonelson, Alan and Christopher Layne. "Divorce, Alliance-Style." The New Republic, Vol. 200, No. 24 (June 12, 1989), pp. 23-25.
- US Arms Control and Disarmament Agency. World Military Expenditures and Arms Transfers 1987. Washington D.C.: US Government Printing Office, 1988.
- Van Loon, Henry. "New Dutch Naval Chief Sees 'Standing Naval Force Europe'." Armed Forces Journal International (September 1989), pp. 32-33.
- von Mueller, Albrecht A. C. and Andrzej Karkoszka. "An East-West Negotiating Proposal." Bulletin of Atomic Scientists, Vol. 44, No.7 (September 1988), pp. 39-41.
- Vredeling, Henk. "Towards a Stronger Europe." NATO's Sixteen Nations, Vol. 32, No. 8 (December 1987/January 1988), pp. 20-23.
- Wall, Patrick. "NATO Today--And Tomorrow." Sea Power, Vol. 32, No. 5 (May 1989), pp. 39-43.
- Weiner, Milton G. "Analyzing Alternative Concepts for the Defense of NATO." Paper prepared for the German Strategy Forum Workshop held in Bonn-Bad Godesberg, 2-4 December 1984.
- Williams, Carol J. "German political parties propose disarmament plan." The Montgomery Advertiser. 7 January 1990, p 3C.
- Yazov, Dmitri. "The Soviet proposal for European security." Bulletin of Atomic Scientists, Vol. 44, No. 7 (September 1988), pp. 8-11.